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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,463	08/20/2003	Paul C. Goodley	10031215	5934

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EXAMINER

FERNANDEZ, KALIMAH

ART UNIT PAPER NUMBER

2881

DATE MAILED: 03/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/644,463

Applicant(s)

GOODLEY ET AL.

Examiner

Kalimah Fernandez

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 February 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 13-25, 27 and 29-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 24, 25, 27 and 29-32 is/are allowed.
- 6) ☒ Claim(s) 1-6, 13-23 and 33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-5, 13-23, and 33 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pat No 6,627,882 issued to Schulz et al.
3. As per claims 1, 7, 9, and 13, Schulz et al disclose an electrospray source of ions for an analyzer (col.8, lines 17-20).
4. Schulz et al disclose a reservoir (242) for containing a liquid (col.17, line 63-col.18, line 3).
5. Schulz et al disclose a manifold for containing a liquid, the manifold having a plurality of nozzles (col.8, lines 21-31), each of the nozzles having a channel and a plurality of openings operatively connected to the channel (see fig. 5a-b; col.8, lines 23-26). Schulz et al disclose the plurality of openings are for ejecting droplets (see col.8, lines 26-31).

6. Schulz et al disclose a conduit connecting the reservoir (242) to the manifold so that liquid in the manifold can flow from the reservoir through the channel of each of the nozzles and through the openings (col.17, lines 45-50).

7. Schulz et al disclose a counter electrode and the openings, the electrical potential difference and the size of the openings being sufficient to enable the liquid to be ejected from the openings in droplets and to enable ions to be ejected from the openings in droplets and to enable ions to be ejected from the droplets (col.4, lines 52-67; col.5, lines 37-65; col.18, lines 3-7).

8. Moreover, Schulz et al disclose tips (col.17, lines 50-51).

9. As per claims 2,15, and 21, Schulz et al disclose a plurality of reservoirs and a plurality of conduits for connected the reservoirs to the manifold (col.17, lines 35-44).

10. As per claims 3,16, 22, and 33, Schulz et al disclose evenly spaced nozzles (tips) (see fig. 4; col.20, lines 27-31).

11. As per claims 4 and 19, Schulz et al disclose an electrode (col.11, lines 30-32; col.12, lines 1-7; col.18, lines 3-7).

12. As per claims 5 and 14, Schulz et al disclose the openings being 20 micrometers (col.20, lines 57-60).

13. As per claims 17-18, Schulz et al disclose an upper housing (252) connected to the conduit and a lower housing connected to the upper housing and containing the tips, wherein the lower housing has a plurality of apertures and a plurality of tubes (see fig. 5a-b).

14. As per claims 20 and 23, Schulz et al disclose conveying liquid from a reservoir of the liquid from a reservoir of the liquid to a manifold (col.17, line 66-col.18, line 3); conveying the liquid from the manifold to a plurality of openings partly and toward a counter electrode assembly having an ion passageway (see fig.4; col.19, lines 13-18); producing an electrical potential difference between the fluid at the openings and the counter electrode (col.18, lines 3-7; col.8, lines 34-39; col.5, lines 37-65); causing the liquid to be ejected from the openings in droplets and ions to be ejected from the droplets (col.12, lines 17-29). Further, Schulz et al disclose a mass spectrometer detector (col.12, lines 25-29).

Allowable Subject Matter

15. Claims 24-25, 27, and 29-32 are allowed. The following is a statement of reasons for the indication of allowable subject matter: the prior art of record fails to teach or fairly suggest a slanted tip as recited in claim 24.

16. For the same reason, claims 6 and 12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

17. Applicant's arguments filed 2-24-05 have been fully considered but they are not persuasive. Applicant argues two points: 1) Schultz does not teach the nozzle contains a plurality of openings for ejecting droplets, and 2) Schultz does not disclose a counter electrode assembly having an ion passageway. Each will be addressed in turn.

18. MPEP 2111 requires each claim be given its broadest reasonable interpretation. Here, the claim language requires one reservoir; one

manifold having a plurality of nozzles; a conduit connecting the reservoir to the manifold; and a counter electrode. More pertinent to the present argument, the claim language requires each nozzle have a channel and a plurality of openings. Broadly defined, this limitation demands the channel have a first end opening and distal end opening --- a plurality of openings. This interpretation is consistent with applicant's specification (pg. 8, lines 1-9). Schultz discloses each nozzle having a channel with two openings: one at the manifold end and the other at the spraying end (see fig. 5b). These opening are for ejecting droplets as required. Therefore, Schultz teaches the claimed invention in total.

19. Applicant also argues Schultz does not discloses a counter electrode having an ion passageway. The strict test of anticipation is not *ipissimis verbis*, i.e. it does not require identical terminology. The recitation "a counter electrode assembly having an ion passageway" is describes in col.19, lines 13-18 of Schultz. As stated previously, applicant's continued argument regarding the recited counter-electrode has been considered, but is not persuasive. In response, applicant is directed to col.19, lines 13-18 of Schulz. Here, Schultz describes an additional electrode as an ion-sampling orifice, which functions to control the electric field--- acts as a counter-

electrode. An ion-sampling orifice electrode has an ion passageway.

Schulz goes on to disclose additional electrodes can be employed in col.

22, lines 17-28. Therefore, this disclosure anticipates the disputed

limitation and places the claimed invention in the possession of the public.

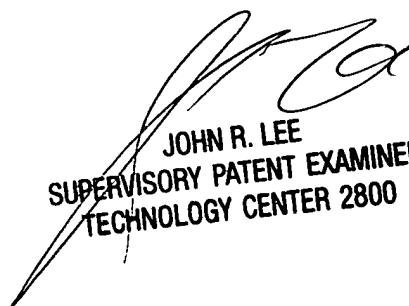
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kalimah Fernandez whose telephone number is 571-272-2470. The examiner can normally be reached on Mon-Tues 6:30-3:30; Wed-Thurs 8-5 and Fri.9am-6 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Lee can be reached on 571-272-2477. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

KF



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